

Richard J Geider

List of Publications by Year in descending order

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117
papers

18,390
citations

23567

58
h-index

23533

111
g-index

121
all docs

121
docs citations

121
times ranked

12755
citing authors

#	ARTICLE	IF	CITATIONS
1	Phytoplankton mortality in a changing thermal seascape. <i>Global Change Biology</i> , 2021, 27, 5253-5261.	9.5	23
2	Projected expansion of <i>Trichodesmium</i> 's geographical distribution and increase in growth potential in response to climate change. <i>Global Change Biology</i> , 2020, 26, 6445-6456.	9.5	6
3	High predictability of direct competition between marine diatoms under different temperatures and nutrient states. <i>Ecology and Evolution</i> , 2020, 10, 7276-7290.	1.9	10
4	Improving the Accuracy of Single Turnover Active Fluorometry (STAF) for the Estimation of Phytoplankton Primary Productivity (PhytoPP). <i>Frontiers in Marine Science</i> , 2019, 6, .	2.5	18
5	CO ₂ modulation of the rates of photosynthesis and light-dependent O ₂ consumption in <i>Trichodesmium</i> . <i>Journal of Experimental Botany</i> , 2019, 70, 589-597.	4.8	12
6	Limitation of dimethylsulfoniopropionate synthesis at high irradiance in natural phytoplankton communities of the Tropical Atlantic. <i>Limnology and Oceanography</i> , 2018, 63, 227-242.	3.1	8
7	Inorganic carbon and pH dependency of photosynthetic rates in <i>Trichodesmium</i> . <i>Journal of Experimental Botany</i> , 2018, 69, 3651-3660.	4.8	17
8	An Integrated Response of <i>Trichodesmium erythraeum</i> IMS101 Growth and Photo-Physiology to Iron, CO ₂ , and Light Intensity. <i>Frontiers in Microbiology</i> , 2018, 9, 624.	3.5	19
9	The physiological cost of diazotrophy for <i>Trichodesmium erythraeum</i> IMS101. <i>PLoS ONE</i> , 2018, 13, e0195638.	2.5	17
10	Predictions of response to temperature are contingent on model choice and data quality. <i>Ecology and Evolution</i> , 2017, 7, 10467-10481.	1.9	19
11	A Key Marine Diazotroph in a Changing Ocean: The Interacting Effects of Temperature, CO ₂ and Light on the Growth of <i>Trichodesmium erythraeum</i> IMS101. <i>PLoS ONE</i> , 2017, 12, e0168796.	2.5	50
12	Role of zooplankton dynamics for Southern Ocean phytoplankton biomass and global biogeochemical cycles. <i>Biogeosciences</i> , 2016, 13, 4111-4133.	3.3	84
13	Bridging the gap between omics and earth system science to better understand how environmental change impacts marine microbes. <i>Global Change Biology</i> , 2016, 22, 61-75.	9.5	58
14	Acclimation of <i>Emiliania huxleyi</i> (1516) to nutrient limitation involves precise modification of the proteome to scavenge alternative sources of N and P. <i>Environmental Microbiology</i> , 2015, 17, 4050-4062.	3.8	44
15	Quantifying Integrated Proteomic Responses to Iron Stress in the Globally Important Marine Diazotroph <i>Trichodesmium</i> . <i>PLoS ONE</i> , 2015, 10, e0142626.	2.5	32
16	Three-Dimensional Visualisation and Quantification of Lipids in Microalgae Using Confocal Laser Scanning Microscopy. <i>Springer Protocols</i> , 2015, , 145-161.	0.3	0
17	Ecology of Marine Phytoplankton. , 2014, , 483-531.		3
18	Ecology of Marine Phytoplankton. , 2014, , 1-41.		2

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19	Plasticity in the proteome of <i>Emiliana huxleyi</i> CCMP 1516 to extremes of light is highly targeted. <i>New Phytologist</i> , 2013, 200, 61-73.	7.3	44
20	The trade-off between the light-harvesting and photoprotective functions of fucoxanthin-chlorophyll proteins dominates light acclimation in <i>Emiliana huxleyi</i> (clone CCMP 1516). <i>New Phytologist</i> , 2013, 200, 74-85.	7.3	78
21	Processes and patterns of oceanic nutrient limitation. <i>Nature Geoscience</i> , 2013, 6, 701-710.	12.9	1,627
22	An optimality model of photoadaptation in contrasting aquatic light regimes. <i>Limnology and Oceanography</i> , 2013, 58, 1802-1818.	3.1	41
23	Predicting the Electron Requirement for Carbon Fixation in Seas and Oceans. <i>PLoS ONE</i> , 2013, 8, e58137.	2.5	91
24	Framework for understanding marine ecosystem health. <i>Marine Ecology - Progress Series</i> , 2013, 494, 1-27.	1.9	171
25	Direct estimation of functional PSII reaction center concentration and PSII electron flux on a volume basis: a new approach to the analysis of Fast Repetition Rate fluorometry (FRRf) data. <i>Limnology and Oceanography: Methods</i> , 2012, 10, 142-154.	2.0	143
26	Dimethyl sulfoniopropionate and dimethyl sulfide production in response to photoinhibition in <i>Emiliana huxleyi</i> . <i>Limnology and Oceanography</i> , 2010, 55, 1579-1589.	3.1	59
27	A model of phytoplankton acclimation to iron-light colimitation. <i>Limnology and Oceanography</i> , 2010, 55, 714-724.	3.1	25
28	Marine ecosystem models for earth systems applications: The MarQUEST experience. <i>Journal of Marine Systems</i> , 2010, 81, 19-33.	2.1	37
29	CHARACTERIZATION AND EXPRESSION ANALYSIS OF THE Lhcf GENE FAMILY IN EMILIANIA HUXLEYI (HAPTOPHYTA) REVEALS DIFFERENTIAL RESPONSES TO LIGHT AND CO ₂ . <i>Journal of Phycology</i> , 2010, 46, 123-134.	2.3	21
30	Estimating Aquatic Productivity from Active Fluorescence Measurements. , 2010, , 103-127.		44
31	PSII photoinhibition and photorepair in Symbiodinium (Pyrrophyta) differs between thermally tolerant and sensitive phylotypes. <i>Marine Ecology - Progress Series</i> , 2010, 406, 57-70.	1.9	111
32	A model of phytoplankton acclimation to iron-light colimitation. <i>Limnology and Oceanography</i> , 2010, 55, 714-724.	3.1	11
33	Growth and photoregulation dynamics of the picoeukaryote <i>Pelagomonas calceolata</i> in fluctuating light. <i>Limnology and Oceanography</i> , 2009, 54, 823-836.	3.1	76
34	Responses of <i>Emiliana huxleyi</i> (Prymnesiophyceae) to step changes in photon flux density. <i>European Journal of Phycology</i> , 2009, 44, 31-48.	2.0	21
35	The role of cost-benefit analysis in models of phytoplankton growth and acclimation. <i>Plant Ecology and Diversity</i> , 2009, 2, 165-178.	2.4	39
36	New cell-based model of photosynthesis and photo-acclimation: accumulation and mobilisation of energy reserves in phytoplankton. <i>Marine Ecology - Progress Series</i> , 2009, 383, 53-71.	1.9	74

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37	Large-scale distribution of Atlantic nitrogen fixation controlled by iron availability. <i>Nature Geoscience</i> , 2009, 2, 867-871.	12.9	396
38	LIGHT-INDUCED MOTILE RESPONSES OF THE ESTUARINE BENTHIC DIATOMS <i>NAVICULA PERMINUTA</i> AND <i>CYLINDROTHECA CLOSTERIUM</i> (BACILLARIOPHYCEAE). <i>Journal of Phycology</i> , 2009, 45, 592-599.	2.3	60
39	Interpretation of fast repetition rate (FRR) fluorescence: signatures of phytoplankton community structure versus physiological state. <i>Marine Ecology - Progress Series</i> , 2009, 376, 1-19.	1.9	330
40	Photosynthesis in Global-Scale Models. <i>Advances in Photosynthesis and Respiration</i> , 2009, , 465-497.	1.0	25
41	Comparing electron transport with gas exchange: parameterising exchange rates between alternative photosynthetic currencies for eukaryotic phytoplankton. <i>Aquatic Microbial Ecology</i> , 2009, 56, 147-162.	1.8	110
42	PHOTOINHIBITION OF PSII IN <i>EMILIANA HUXLEYI</i> (HAPTOPHYTA) UNDER HIGH LIGHT STRESS: THE ROLES OF PHOTOACCLIMATION, PHOTOPROTECTION, AND PHOTOREPAIR. <i>Journal of Phycology</i> , 2008, 44, 670-683.	2.3	68
43	Impacts of Atmospheric Anthropogenic Nitrogen on the Open Ocean. <i>Science</i> , 2008, 320, 893-897.	12.6	964
44	Relative influence of nitrogen and phosphorous availability on phytoplankton physiology and productivity in the oligotrophic subtropical North Atlantic Ocean. <i>Limnology and Oceanography</i> , 2008, 53, 291-305.	3.1	206
45	Nutrient limitation of picophytoplankton photosynthesis and growth in the tropical North Atlantic. <i>Limnology and Oceanography</i> , 2008, 53, 1722-1733.	3.1	88
46	A model of photosynthesis and photo-protection based on reaction center damage and repair. <i>Limnology and Oceanography</i> , 2008, 53, 1835-1852.	3.1	34
47	Different strategies of photoacclimation by two strains of <i>Emiliana huxleyi</i> (Haptophyta). <i>Journal of Phycology</i> , 2007, 43, 1209-1222.	2.3	78
48	Gross photosynthesis and lake community metabolism during the spring phytoplankton bloom. <i>Limnology and Oceanography</i> , 2006, 51, 2064-2076.	3.1	41
49	Iron limits primary productivity during spring bloom development in the central North Atlantic. <i>Global Change Biology</i> , 2006, 12, 626-634.	9.5	134
50	Phytoplankton photoacclimation and photoadaptation in response to environmental gradients in a shelf sea. <i>Limnology and Oceanography</i> , 2006, 51, 936-949.	3.1	187
51	ELEMENTAL AND BIOCHEMICAL COMPOSITION OF RHINOMONAS RETICULATA (CRYPTOPHYTA) IN RELATION TO LIGHT AND NITRATE-TO-PHOSPHATE SUPPLY RATIOS. <i>Journal of Phycology</i> , 2005, 41, 567-576.	2.3	24
52	ACCLIMATION OF EMILIANA HUXLEYI (PRYMNESIOPHYCEAE) TO PHOTON FLUX DENSITY. <i>Journal of Phycology</i> , 2005, 41, 851-862.	2.3	45
53	ELEVATED ATMOSPHERIC CARBON DIOXIDE INCREASES ORGANIC CARBON FIXATION BY EMILIANA HUXLEYI (HAPTOPHYTA), UNDER NUTRIENT-LIMITED HIGH-LIGHT CONDITIONS. <i>Journal of Phycology</i> , 2005, 41, 1196-1203.	2.3	99
54	Ecosystem dynamics based on plankton functional types for global ocean biogeochemistry models. <i>Global Change Biology</i> , 2005, 11, 051013014052005-???	9.5	353

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55	Responses of elemental and biochemical composition of <i>Chaetoceros muelleri</i> to growth under varying light and nitrate : phosphate supply ratios and their influence on critical N: P. <i>Limnology and Oceanography</i> , 2004, 49, 2105-2114.	3.1	76
56	Effects of nitrate : phosphate supply ratio and irradiance on the C:N:P stoichiometry of <i>Chaetoceros muelleri</i> . <i>European Journal of Phycology</i> , 2004, 39, 173-180.	2.0	41
57	A methodology to determine primary production and phytoplankton photosynthetic parameters from Fast Repetition Rate Fluorometry. <i>Journal of Plankton Research</i> , 2004, 26, 1337-1350.	1.8	82
58	Iron and phosphorus co-limit nitrogen fixation in the eastern tropical North Atlantic. <i>Nature</i> , 2004, 429, 292-294.	27.8	842
59	THE ROLE OF AQUATIC PHOTOSYNTHESIS IN SOLAR ENERGY CONVERSION: A GEOEVOLUTIONARY PERSPECTIVE. <i>Series on Photoconversion of Solar Energy</i> , 2004, , 287-321.	0.2	0
60	Evaluation of biophysical and optical determinations of light absorption by photosystem II in phytoplankton. <i>Limnology and Oceanography: Methods</i> , 2004, 2, 316-332.	2.0	172
61	PHYTOPLANKTON PLASMA MEMBRANE REDOX ACTIVITY: EFFECT OF IRON LIMITATION AND INTERACTION WITH PHOTOSYNTHESIS1. <i>Journal of Phycology</i> , 2003, 39, 1132-1144.	2.3	12
62	Fast repetition rate and pulse amplitude modulation chlorophyllafluorescence measurements for assessment of photosynthetic electron transport in marine phytoplankton. <i>European Journal of Phycology</i> , 2003, 38, 371-384.	2.0	155
63	Adaptation, Acclimation and Regulation in Algal Photosynthesis. <i>Advances in Photosynthesis and Respiration</i> , 2003, , 385-412.	1.0	83
64	Modeling carbon to nitrogen and carbon to chlorophyll <i>a</i> ratios in the ocean at low latitudes: Evaluation of the role of physiological plasticity. <i>Limnology and Oceanography</i> , 2003, 48, 1796-1807.	3.1	35
65	Redfield revisited: variability of C:N:P in marine microalgae and its biochemical basis. <i>European Journal of Phycology</i> , 2002, 37, 1-17.	2.0	1,179
66	PHOTOACCLIMATION OF PHOTOSYNTHESIS IRRADIANCE RESPONSE CURVES AND PHOTOSYNTHETIC PIGMENTS IN MICROALGAE AND CYANOBACTERIA1. <i>Journal of Phycology</i> , 2002, 38, 17-38.	2.3	695
67	Phytoplankton physiology can affect ocean surface temperatures. <i>Geophysical Research Letters</i> , 2001, 28, 1251-1254.	4.0	2
68	Thermal acclimation in the marine diatom <i>Chaetoceros calcitrans</i> (Bacillariophyceae). <i>European Journal of Phycology</i> , 2001, 36, 233-241.	2.0	55
69	Assessment of photosynthesis in a spring cyanobacterial bloom by use of a fast repetition rate fluorometer. <i>Limnology and Oceanography</i> , 2001, 46, 802-810.	3.1	100
70	IMPACT OF IRON LIMITATION ON THE PHOTOSYNTHETIC APPARATUS OF THE DIATOM <i>CHAETOCEROS MUELLERI</i> (BACILLARIOPHYCEAE). <i>Journal of Phycology</i> , 2001, 37, 987-1000.	2.3	53
71	Primary productivity of planet earth: biological determinants and physical constraints in terrestrial and aquatic habitats. <i>Global Change Biology</i> , 2001, 7, 849-882.	9.5	281
72	A comparison of two N-irradiance interaction models of phytoplankton growth. <i>Limnology and Oceanography</i> , 2001, 46, 1794-1802.	3.1	44

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73	Co-limitation by iron and light of <i>Chaetoceros brevis</i> , <i>C. dicaeta</i> and <i>C. calcitrans</i> (Bacillariophyceae). <i>Marine Ecology - Progress Series</i> , 2001, 217, 287-297.	1.9	98
74	A mechanistic model of photoinhibition. <i>New Phytologist</i> , 2000, 145, 347-359.	7.3	97
75	Photoacclimation in the marine diatom <i>Skeletonema costatum</i> . <i>Limnology and Oceanography</i> , 2000, 45, 1807-1817.	3.1	161
76	The effect of water motion on short-term rates of photosynthesis by marine phytoplankton. <i>Trends in Plant Science</i> , 2000, 5, 12-17.	8.8	239
77	ACCUMULATION OF FERREDOXIN AND FLAVODOXIN IN A MARINE DIATOM IN RESPONSE TO FE. <i>Journal of Phycology</i> , 1999, 35, 510-519.	2.3	69
78	Complex lessons of iron uptake. <i>Nature</i> , 1999, 400, 815-816.	27.8	48
79	Responses of the photosynthetic apparatus of <i>Dunaliella tertiolecta</i> (Chlorophyceae) to nitrogen and phosphorus limitation. <i>European Journal of Phycology</i> , 1998, 33, 315-332.	2.0	157
80	A dynamic regulatory model of phytoplanktonic acclimation to light, nutrients, and temperature. <i>Limnology and Oceanography</i> , 1998, 43, 679-694.	3.1	778
81	Physiological and Biochemical Response of the Photosynthetic Apparatus of Two Marine Diatoms to Fe Stress. <i>Plant Physiology</i> , 1997, 114, 615-622.	4.8	100
82	Photosynthesis or planktonic respiration?. <i>Nature</i> , 1997, 388, 132-132.	27.8	37
83	Title is missing!. <i>Photosynthesis Research</i> , 1997, 51, 93-106.	2.9	47
84	Regulation of photosynthetic pigments in micro-algae by multiple environmental factors: a dynamic balance hypothesis. <i>New Phytologist</i> , 1997, 137, 629-638.	7.3	61
85	Dynamic model of phytoplankton growth and acclimation: responses of the balanced growth rate and the chlorophyll a:carbon ratio to light, nutrient-limitation and temperature. <i>Marine Ecology - Progress Series</i> , 1997, 148, 187-200.	1.9	613
86	Seasonal and latitudinal dependencies of phytoplankton carbon-to-chlorophyll a ratios: results of a modelling study. <i>Marine Ecology - Progress Series</i> , 1997, 152, 51-66.	1.9	149
87	A dynamic model of photoadaptation in phytoplankton. <i>Limnology and Oceanography</i> , 1996, 41, 1-15.	3.1	273
88	Synoptic study of variations in the fluorescence based maximum quantum efficiency of photosynthesis across the North Atlantic Ocean. <i>Limnology and Oceanography</i> , 1996, 41, 755-765.	3.1	34
89	Nitrogen limitation of North Atlantic phytoplankton: analysis of physiological condition in nutrient enrichment experiments. <i>Aquatic Microbial Ecology</i> , 1996, 11, 53-64.	1.8	107
90	Microphytobenthos: The Ecological Role of the "Secret Garden" of Unvegetated, Shallow-Water Marine Habitats. I. Distribution, Abundance and Primary Production. <i>Estuaries and Coasts</i> , 1996, 19, 186.	1.7	796

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91	Microphytobenthos: The Ecological Role of the "Secret Garden" of Unvegetated, Shallow-Water Marine Habitats. II. Role in Sediment Stability and Shallow-Water Food Webs. <i>Estuaries and Coasts</i> , 1996, 19, 202.	1.7	288
92	PHOTOSYNTHESIS AND REGULATION OF RUBISCO ACTIVITY IN NET PHYTOPLANKTON FROM DELAWARE BAY ¹ . <i>Journal of Phycology</i> , 1996, 32, 718-731.	2.3	34
93	PHYSIOLOGICAL RESPONSES TO PHOSPHORUS LIMITATION IN BATCH AND STEADY-STATE CULTURES OF <i>DUNALIELLA TERTIOLECTA</i> (CHLOROPHYTA): A UNIQUE STRESS PROTEIN AS AN INDICATOR OF PHOSPHATE DEFICIENCY ¹ . <i>Journal of Phycology</i> , 1996, 32, 825-838.	2.3	42
94	Flavodoxin as an in situ marker for iron stress in phytoplankton. <i>Nature</i> , 1996, 382, 802-805.	27.8	269
95	Regulation of Rubisco activity and its potential effect on photosynthesis during mixing in a turbid estuary. <i>Marine Ecology - Progress Series</i> , 1996, 144, 247-264.	1.9	34
96	The role of iron in phytoplankton photosynthesis, and the potential for iron-limitation of primary productivity in the sea. <i>Photosynthesis Research</i> , 1994, 39, 275-301.	2.9	382
97	RESPONSE OF THE PHOTOSYNTHETIC APPARATUS OF <i>PHAEODACTYLUM TRICORNUTUM</i> (BACILLARIOPHYCEAE) TO NITRATE, PHOSPHATE, OR IRON STARVATION ¹ . <i>Journal of Phycology</i> , 1993, 29, 755-766.	2.3	374
98	INDUCTION OF SPECIFIC PROTEINS IN EUKARYOTIC ALGAE GROWN UNDER IRON-, PHOSPHORUS-, OR NITROGEN-DEFICIENT CONDITIONS ¹ . <i>Journal of Phycology</i> , 1993, 29, 767-777.	2.3	149
99	Fluorescence assessment of the maximum quantum efficiency of photosynthesis in the western North Atlantic. <i>Deep-Sea Research Part I: Oceanographic Research Papers</i> , 1993, 40, 1205-1224.	1.4	89
100	Iron-Induced Changes in Light Harvesting and Photochemical Energy Conversion Processes in Eukaryotic Marine Algae. <i>Plant Physiology</i> , 1992, 100, 565-575.	4.8	271
101	Physiological Limitations on Phytoplankton Productivity in the Ocean. <i>Oceanography</i> , 1992, 5, 84-91.	1.0	111
102	Respiration: Taxation Without Representation?., 1992, , 333-360.		60
103	Effect of iron limitation on photosynthesis in a marine diatom. <i>Limnology and Oceanography</i> , 1991, 36, 1772-1782.	3.1	245
104	The relationship between steady state phytoplankton growth and photosynthesis. <i>Limnology and Oceanography</i> , 1990, 35, 971-972.	3.1	13
105	Use of radiolabeled tracers in dilution grazing experiments to estimate bacterial growth and loss rates. <i>Microbial Ecology</i> , 1989, 17, 77-87.	2.8	4
106	Respiration and microalgal growth: a review of the quantitative relationship between dark respiration and growth. <i>New Phytologist</i> , 1989, 112, 327-341.	7.3	217
107	Evidence for the presence of phycoerythrin in <i>Dinophysis norvegica</i> , a pink dinoflagellate. <i>British Phycological Journal</i> , 1989, 24, 195-198.	1.2	21
108	Temperature and algal growth. <i>New Phytologist</i> , 1988, 110, 441-461.	7.3	624

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109	Abundances of autotrophic and heterotrophic nanoplankton and the size distribution of microbial biomass in the southwestern North Sea in October 1986. <i>Journal of Experimental Marine Biology and Ecology</i> , 1988, 123, 127-145.	1.5	19
110	An improved method for the observation and enumeration of heterotrophic and photoautotrophic microplankton. <i>Journal of Experimental Marine Biology and Ecology</i> , 1987, 110, 19-25.	1.5	3
111	The measurement of gross planktonic production. <i>Nature</i> , 1987, 325, 739-739.	27.8	1
112	THE MINIMUM PHOTON REQUIREMENT FOR PHOTOSYNTHESIS. <i>New Phytologist</i> , 1987, 106, 631-644.	7.3	26
113	LIGHT AND TEMPERATURE DEPENDENCE OF THE CARBON TO CHLOROPHYLL <i>a</i> RATIO IN MICROALGAE AND CYANOBACTERIA: IMPLICATIONS FOR PHYSIOLOGY AND GROWTH OF PHYTOPLANKTON. <i>New Phytologist</i> , 1987, 106, 1-34.	7.3	621
114	GROWTH, PHOTOSYNTHESIS AND MAINTENANCE METABOLIC COST IN THE DIATOM <i>PHAEODACTYLUM TRICORNUTUM</i> AT VERY LOW LIGHT LEVELS ¹ . <i>Journal of Phycology</i> , 1986, 22, 39-48.	2.3	87
115	Kinetics of intracellular carbon allocation in a marine diatom. <i>Journal of Experimental Marine Biology and Ecology</i> , 1985, 93, 191-210.	1.5	46
116	Microplankton productivity in the oligotrophic ocean. <i>Nature</i> , 1984, 311, 252-254.	27.8	51
117	Thermodynamics of the Pelagic Ecosystem: Elementary Closure Conditions for Biological Production in the Open Ocean. , 1984, , 49-84.		50